# HISTORY OF THE EAST AND CENTER WINGS DESIGN AND CONSTRUCTION

# Prepared by the Office of the Curator

#### THE ARCHITECT

Robert Mills is considered one of the most significant architects of the nineteenth century. Mills had a profound influence on the development of Washington as a capital city with his designs for some of the city's most important federal buildings including the Patent Office Building, the Post Office and the Treasury Building. Secondly, Mills is also critical in the development of the architectural profession in this country as he was one of America's first native born architects. Mills described himself as "the first American who has passed through a regular course of study in architecture in his own country". Mills took pride in this claim and encouraged others to pursue an American taste in architecture.

Mills was born in 1781 to William Mills, a tailor and Ann Taylor Mills of Charleston, South Carolina. While the facts about Mills' early training in Charleston are clouded, it appears that as a young adult, Mills was apprenticed to White House architect James Hoban. It was probably this move to Washington to work with Hoban that first put Mills in contact with Thomas Jefferson. While there is no evidence that Jefferson formally taught Mills, Jefferson did employ Mills as a draftsman at Monticello.<sup>2</sup> The other important benefit of Mills' relationship with Jefferson was access to Jefferson's library, which at the time was the largest architectural library in America. The friendship with Jefferson also exposed young Mills to neo-classical architecture.

Equally remarkable about Mills' early training is the architectural study trip that he undertook in 1802. Armed with letters of introduction from President Jefferson, Mills toured the eastern seaboard "to examine the progress and improvement there in Architecture and the fine Arts." During this trip, Mills recorded the buildings he saw with drawings. This trip enabled Mills to examine the work of his contemporaries and place Jefferson's classicism into a national context.

In addition to Jefferson, Mills' other important mentor was Benjamin Henry Latrobe. In 1803, Mills joined Latrobe's office where he remained for five years. Interestingly, while in Latrobe's office Mills worked on the fireproof repository which Latrobe added to the existing Treasury

<sup>&</sup>lt;sup>1</sup>Robert Mills, quoted in J. Jefferson Miller II, "The Designs for the Washington Monument in Baltimore," *Journal of the Society of Architectural Historians* 23 (1964), p. 23.

<sup>&</sup>lt;sup>2</sup>Jefferson had Mills prepare a plan of Monticello.

<sup>&</sup>lt;sup>3</sup>John Bryan, ed. *Robert Mills*, *Architect* (Washington, DC: The American Institute of Architects Press, 1989), p. 4.

Building. From his employment with Latrobe, Mills learned about fireproof construction and he supervised the construction of the Bank of Pennsylvania in Philadelphia. He went on to design the Burlington County Jail in Mount Holly, New Jersey as well as fireproof wings for the Pennsylvania State House (now Independence Hall), in Philadelphia c. 1812. Mills later built the Fireproof Building (also known as the Records Office) in Charleston and several churches located in Richmond, Baltimore, and Philadelphia. Mills boasted, "I can confidently say, that there is no architect in the country who has erected as many Fire proof buildings as I have, not one of which has failed."

From Latrobe, Mills also learned the technique and design approach to simplified, carefully proportioned exteriors similar to the work of the English designer Robert Adam. These designs employed little applied ornament and used subtle shifts in wall plane and columns as major design elements. It has been noted that Robert Mills "had more influence in promoting the Greek Revival style in America than did Latrobe or any other of the best-known architects." Mills wrote that he favored what he described as "the simple and chaste style of the Grecian buildings" introduced "by the talents and good taste of such a man as Mr. Latrobe."

When Mills left Latrobe's office in 1808, he moved to Philadelphia where he began his own architectural practice. While in Philadelphia, Mills designed Franklin Row, a number of Philadelphia churches and a home for the prominent lawyer Benjamin Chew. Working in Philadelphia, Mills would have also been exposed to that city's architectural community, then conservative in its building style.

After receiving the commission to design the Washington Monument in Baltimore, Mills relocated to that city. In addition to supervising the construction of the monument, Mills also served as president of the Baltimore Water Company and designed Waterloo Row, a speculative building project.

Mills spent the decade of the 1820s working in his native South Carolina. In 1820, he was named acting commissioner for public buildings for the state of South Carolina, a position in which he served for two years. From January 1, 1823 to the end of that year, he served as superintendent of public buildings and from 1824 to 1829 he served as an architectural consultant to the state. During the 1820s, Mills designed several dozen jails, county courthouses and institutional buildings throughout South Carolina and it was in South Carolina that Mills perfected his "fireproof" construction techniques. One of Mills' best-known fireproof buildings, the Record Office in Charleston, was built for the safekeeping of state documents during this period. The construction of this structure included brick walls and floors, a copper covered roof,

<sup>&</sup>lt;sup>4</sup>Mills' Papers, document #1682.

<sup>&</sup>lt;sup>5</sup>Paul F. Norton, review of *Robert Mills, Architect*, in *Journal of the Society of Architectural Historians* 50 (1991), pp. 89-90.

iron window frames, sashes, and shutters.

In 1830, Mills returned to Washington and worked as a draftsman in the Land Office, at that time part of the Treasury Department. In 1833, after fire destroyed the Treasury Building, Mills was asked to prepare plans of the destroyed building and a report on the fire damage.<sup>6</sup> Simultaneously, Mills also prepared a plan for a replacement building. Three years later, President Jackson appointed Mills "Architect of Public Buildings" and put him in charge of the construction of the new Treasury and a new Patent Office.<sup>7</sup> The commission for the new Post Office was awarded to Mills in 1839. These significant federal commissions put Mills in an inevitable position as the leading designer of public buildings in Washington.

Mills' designs for memorials also won him national acclaim. In addition to winning the competition for Baltimore's memorial to the late President Washington, his design was selected in 1845 for the Washington Monument to be built on the Mall in Washington.

Mills was a prolific writer and he authored works on a wide variety of topics relating to his interest in engineering. These publications include *A Treatise of Inland Navigation*, *The American Pharos*, *or Lighthouse Guide* and several works on railroad topics.

After completing his work on the Treasury in 1842, Mills continued in his federal position until 1851 when he was dismissed. Near the end of his life, Mills wrote to a friend,

Twenty years of my life have been spent in the Government service here, and my works there will prove my faithfulness to the interests of the Government. The buildings I have erected, compared with other Public buildings of a like character elsewhere, will show with what economy they have been constructed, costing but a moiety of other buildings of like dimensions. And tho' I have disbursed millions of dollars in such constructions, I have to labor still for my bread. Had I been unfaithful to my trust, I might have been wealthy at this day, in place of not having a dollar to call my own.

While Mills may have felt uncompensated for his designs, as the first federal architect employed by the Treasury Department, his legacy was the establishment of a federal architectural program. In 1836 (the same year that Mills was appointed architect of the Treasury Building), Secretary of the Treasury Levi Woodbury recommended that surplus monies from the sale of land be used to build the required public buildings throughout the nation. The architectural program which had

<sup>&</sup>lt;sup>6</sup>Mills' Papers, document #1336.

<sup>&</sup>lt;sup>7</sup>From Mills' rival William Elliot, we learn that Mills may have more than one connection with President Jackson which made his appointment as architect possible. According to Elliot, Mills had been "recently employed by General Jackson to make drawings for the Hermitage." The Hermitage was Jackson's home in Tennessee.

begun modestly under Mills, expanded significantly in the 1850s with the erection of dozens of customs houses, post offices and courthouses. The position that Mills had held was institutionalized in 1852 with the creation of the Office of the Supervising Architect of the Treasury, responsible for designing and constructing government buildings.

Mills died in at his home several blocks from the Treasury Building on March 3, 1855.

# Mills' Works<sup>8</sup>

1804-1806	Circular Church	Charleston, S.C.
1807-1812	First Presbyterian Church	Augusta, Ga.
1808-1810	Prison (now the Historical	
	Burlington County Prison Museum)	Mount Holly, N.J.
1808-1812	State House (wings)	Philadelphia
1809-1816	Washington Hall	Philadelphia
1811-1812	Sansom Street Baptist Church	Philadelphia
1812-1813	Octagon Unitarian Church	Philadelphia
1812-1817	Monumental Church	Richmond, Va.
1813-1814	Upper Ferry Bridge (cover)	Philadelphia
1814-1842	Washington Monument	Baltimore
1816-1818	Brokenbrough House	
	(now the Museum of the Confederacy) <sup>9</sup>	Richmond, Va.
1816-1818	First Baptist Church	Baltimore
1816-1819	Waterloo Row	Baltimore
1817-1822	First Baptist Church	Charleston, S.C.
1818-1820	Potts House	Frederick, Md.
1821-1822	Hoffman House	Baltimore
1821-1823	Bethesda Presbyterian Church	Camden, S.C.
1821-1823	Jail	Lancaster, S.C.
1821-1823	Jail	Union, S.C.
1821-1825	Courthouse	Winnsboro, S.C.
1821-1826	Powder Magazine	Charleston, S.C.
1821-1827	Asylum	Columbia, S.C.
1821-1827	County Record Building, (Fireproof	
	Building; now the South Carolina	
	Historical Society)	Charleston, S.C.
1822-1824	Courthouse	Georgetown, S.C.

<sup>&</sup>lt;sup>8</sup>Macmillian Dictionary of Architects

<sup>&</sup>lt;sup>9</sup>Recent scholarship indicates that Mills did not design the Brokenbrough House.

1822-1824	Jail wing	Charleston, S.C.
1822-1825	Courthouse	Kingstree, S.C.
1823-1825	Second Ainsley Hall House (now the Rober	t
	Mills Historic House)	Columbia, S.C.
1823-1825	Courthouse	Conway, S.C.
1824-1827	de Kalb Monument	Columbia, S.C.
1824-1827	Maxcy Monument	Columbia, S.C.
1825-1830	Courthouse	Camden, S.C.
1830-1835	Customs House	Mobile, Ala.
1831-1834	Marine Hospital	Charleston, S.C.
1833-1884	Washington National Monument	Washington, DC
1834-1835	Customs House	Middletown, Conn.
1834-1835	Customs House	New Bedford, Mass.
1834-1835	Customs House	Newburyport, Mass.
1834-1835	Customs House	New London, Conn.
1834-1839	Appraisers Stores	Baltimore
1836-1840	Patent Office Building	Washington, D.C.
1836-1842	Treasury Building	Washington, D.C.
1838-1839	Courthouse	Alexandria, Va.
1838-1840	South Carolina Library	Columbia, S.C.
1839-1841	Jail	Washington, D.C.
1839-1842	Post Office Building	Washington, D.C.
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#### **CONSTRUCTION HISTORY**

## **Early History**

The Treasury Building can trace its origins to the year 1800 when the government relocated from Philadelphia to the new federal city of Washington. In 1800, Treasury moved into one of two executive departmental buildings adjacent to the President's House. Both of these departmental buildings were built of brick in the Georgian style and were designed by the English architect George Hadfield. This early Treasury building was damaged by fire in 1801. A second, and more disastrous fire, occurred in 1814 when the British attacked Washington. This fire destroyed the Treasury which was rebuilt in 1817 by White House architect James Hoban. In 1833, another fire destroyed the Treasury. The present Treasury Building and its fireproof construction is a direct result of that 1833 fire.

The Treasury Building was constructed in four phases from 1836 to 1869; the east and center wings were constructed in 1836 to 1842 by Robert Mills, the south wing was constructed between 1855 and 1861 by Ammi B. Young, the west wing was constructed between 1857 and 1864 by Ammi B. Young and Isaiah Rogers, and the final section, the north wing, was constructed between 1867 and 1869 by Alfred B. Mullett.

The building occupies the block bounded on the east by Fifteenth Street, N. W., on the north by Pennsylvania Avenue, N. W., on the west by East Executive Avenue, N. W., and on the south by Hamilton Place. Vehicular traffic is allowed only on Fifteenth Street. The blocks of Hamilton Place and East Executive Avenue are limited to pedestrian access, controlled vehicular access, and limited parking. The block of Pennsylvania Avenue on the north side of the building has limited parking.

The Treasury Building was listed on the National Register of Historic Places in 1971, and was designated a National Historic Landmark in 1972.

## **Statement of Significance**

The Treasury Building is one of the most architecturally significant buildings in America and it has had a great impact on the design of other government buildings. Of particular interest for the purpose of this study is the impact that Mills' design for the Treasury had on fireproof construction and the promotion of the Greek Revival style of architecture in the United States.

Mills' Treasury Building is a remarkable combination of structural system, form, and function that characterizes the architect's mature work. The engineering skills that Mills acquired through his early association with the foremost engineer of the time, Benjamin Henry Latrobe, enabled Mills to design the innovative buildings for which he is known. In the Treasury, Mills employed barrel-vaulted corridors flanked by groin vaulted private offices. This interior vaulting system was

constructed of brick rather than the traditional practice of spanning ceilings with wood joists. Mills also substituted hydraulic cement for the traditional lime mortar. The hydraulic cement produced greater adhesion with less settling which enabled Mills to reduce the wall thickness to 2 feet, 3 inches (opposed to 3 feet, 6 inches). The development of this structural system was critical to the construction of early fireproof buildings for the federal government.

In turn, the Treasury Building's structural system influenced the plan of the building. The long barrel vaults formed the two main corridors of the building. These vaulted corridors created processional space which draws the visitor towards their intersection in the middle of the east wing. On either side of the corridor, Mills arranged the offices and each groin vault formed an office or "cell." With this design, Mills had developed a modular system that he extended for the length of the corridors. Employing such a flexible modular system enabled Mills to build the first large modern office building in the United States.

Mills' use of the Greek Revival style for the Treasury Building helped to establish the vocabulary for subsequent federal buildings. The east colonnade which Mills described as "grand and imposing" was his most significant architectural feature. Mills understood the originality of this feature and it is the most widely imitated feature of the building. On the interior, Mills' restrained use of ornament reinforces the spacial effect. The barrel and groin vaults spring from simple entablatures. The architraves surrounding the doors and windows are simple, flat surfaces. The articulation of ornament is secondary to the articulation of space and form.

The Treasury Building is tangible evidence of the dramatic growth of the federal government in the early nineteenth century.<sup>11</sup> In the country's first fifty years, the settled frontier tripled to more than 1,000 miles inland from the eastern seaboard. The most direct impact on Treasury was in the Land Office which was administratively part of Treasury until 1849. The Land Office and the various offices which were charged with accounting for the nation's wealth were among those that occupied a significant amount of space in Mills' Treasury Building.

Finally, the high degree of architectural integrity of the building is significant. According to the prominent architectural historian William Pierson, of Mills' three Washington buildings (the Post Office, Patent Office and Treasury), "the Treasury Building was the most important and the most controversial in Mills's career. As it survives today it is also the best one in which to study his style

<sup>&</sup>lt;sup>10</sup>See for example, Cass Gilbert's design for the federal office buildings around Lafayette Square which had colonnades inspired by Mills' Treasury. The Commerce and Justice Department buildings with their colonnades are other examples.

<sup>&</sup>lt;sup>11</sup>According to Lois Craig author of *The Federal Presence*, during the period in which Treasury was constructed (1836 to 1869), the number of Washington-based Treasury employees increased from 372 to 2,650.

and his method."<sup>12</sup> The building retains a significant amount of its original architectural fabric including the only known collection of mantels by Ferdinand Pettrich (German, 1798-1872), marble flooring, door and window architraves and moldings.

The Treasury Building has the distinction of being the longest continuously occupied department building in Washington, D. C. and is still occupied by the cabinet-level department for which it was originally built. In contrast, the Post Office, Patent Office, State, War, and Navy departments no longer occupy their original nineteenth century buildings.

In 1927, during Andrew Mellon's tenure as Secretary of the Treasury, the building was chosen to appear on the nation's paper currency, on the reverse of ten dollar bill. This depiction on the nation's currency, represents United States' emergence as the greatest capitalist nation in the world. It also has popularized this building as one of Washington's leading landmarks, sharing this distinction with the White House (\$20 bill), the Lincoln Memorial (\$5 bill) and the Capitol (\$50).

## **Greek Revival Architecture**

The large, simple exterior design [of Treasury] was not, of course, a mere copy of a Greek temple but, as the best of the Greek Revival designs, solved new problems within a vocabulary of Greek concepts of form with considerable originality. The free use of Greek elements enable the large office building - a new type never before built in the United States - to be given a sense of unity of concept that, had it been constructed in brick with the older vernacular trim, would have been impossible to achieve.<sup>13</sup>

# -- Daniel Reiff on Mills' Treasury

In the late eighteenth century, several developments contributed to the change in architectural style from the Renaissance classicism of Palladio to the classical architecture of ancient Greece and Rome. The archaeological discoveries of the ancient cites of Heraculaneum and Pompeii in the eighteenth century captured the public's imagination and began to influence all aspects of culture. The romantic association with ancient Greeks and their political system of democracy and cultural ideals had strong appeal for Americans. In addition, the contemporary Greek struggle for independence against Turkey in the war of 1821-1827 won the sympathy of the United States. Thus it is not surprising that the Greek Revival style of architecture became the most popular style in the decades before the Civil War.

<sup>&</sup>lt;sup>12</sup>William H. Pierson, Jr., *American Buildings and Their Architects: The Colonial and Neoclassical Styles*, (New York: Oxford University Press, 1986), p. 404.

<sup>&</sup>lt;sup>13</sup>Daniel D. Reiff, *Washington Architecture 1791-1861: Problems in Development*. (Washington DC: U.S. Commission of Fine Arts, 1971), pp. 37-8.

Beginning in the late eighteenth century, the classical temple form was adapted for nearly every building type including churches, institutional buildings and houses. William Strickland's winning design for the Second Bank of the United States in Philadelphia signaled a turn toward Greece as the dominant inspiration for a public style. Perhaps one of the greatest proponents of classical architecture was Thomas Jefferson whose "choice of the columnar style of ancient Greece and Rome would project a symbolic image of the federal presence." 15

Mills addressed the suitability of this architectural style to America when he wrote: "It was fortunate that this style [Greek Revival] was so early introduced into our country, both on the grounds of economy and correct taste, as it exactly suited the character of our political institutions and pecuniary means." Mills' contributions to the development of American architecture led John M. Bryan, authority on Robert Mills to write that Mills "had more influence in promoting the Greek Revival style in America than did Latrobe or any other of the best-known architects." <sup>17</sup>

# **Fireproof Construction**

The beginning of solid masonry construction in the United States can be traced to the arrival of Benjamin Henry Latrobe in Virginia in 1796.<sup>18</sup> Latrobe, the experienced architect and engineer emigrated from England, bringing his knowledge of vault construction with him. His influence on American architecture was twofold. First, he designed prominent buildings that were of fireproof construction. Secondly, he taught a generation of architects like Robert Mills who went on to have successful careers of their own.

Latrobe's first major commission in this country was the penitentiary in Richmond, Virginia. Constructed in a horseshoe plan from 1797-1798, each prisoner's cell was vaulted. During the construction of the penitentiary, Latrobe received a second commission for a private bank in Philadelphia. Other fireproof buildings designed by Latrobe include the completion of the south wing of the U.S. Capitol where he also redesigned the interior and installed a vaulted ceiling in the basement. In 1804, Latrobe designed a fireproof addition to George Hadfield's Treasury Building.

<sup>&</sup>lt;sup>14</sup>William Strickland also trained under Benjamin Latrobe.

<sup>&</sup>lt;sup>15</sup>Lois Craig, Federal Presence: Architecture, Politics and Symbols in United States Government Building, (Cambridge, Massachusetts: The MIT Press, 1977), p. 7.

<sup>&</sup>lt;sup>16</sup>William H. Pierson, Jr., *American Buildings and Their Architects: The Colonial and Neoclassical Styles*, I (New York: Oxford University Press, 1970), p. 375.

<sup>&</sup>lt;sup>17</sup>Paul F. Norton, review of *Robert Mills, Architect*, in *Journal of the Society of Architectural Historians* 50 (1991), pp. 89-90.

<sup>&</sup>lt;sup>18</sup>Sara Eve Wermeil, "Nothing Succeeds Like Failure: The Development of the Fireproof Building in the United States, 1790-1911," Diss. Massachusetts Institute of Technology 1996, p. 45.

In the 1830s the federal government changed its policy toward public building and began to specify fireproof designs for new construction. In response to the 1833 Treasury fire, Congress required the construction of a fireproof building to replace it. Experienced with fireproof construction, Robert Mills, was appointed architect of the new Treasury Building, the Patent Office (whose records were also lost in a fire) and the new Post Office Building. In 1833, Mills was also commissioned to design four customs houses in New England for which he submitted fireproof designs.

As evidence of the revolutionary nature of fireproof construction in this country, Mills had difficulties in finding qualified craftsmen to implement his design. Mills observed, "There were but few bricklayers in the country acquainted with the construction of a groin arch; and in this particular our operatives had to undergo a sort of teaching"<sup>19</sup>

Mills cited hydraulic cement as a critical material in the construction of fireproof buildings. In addition to its waterproofing qualities, it also was quick setting. Mills predicted "it will be practical, by means of this valuable cement, to erect fire-proof buildings in half the time usually allotted for their execution with common mortar."<sup>20</sup>

# Planning, Design and Construction of the East and Center Wings

After the 1833 Treasury fire, the design and siting of a new building was the subject of discussion between Congress, the President and interested architects. Robert Mills prepared at least two sets of designs in 1833 and 1834 for the construction of fireproof public buildings. In February of 1835, architect William P. Elliot provided a proposal for a pair of fireproof public buildings to be constructed on either side of the President's House. These buildings were to be "C" shape in plan and constructed of granite. Elliot recommended that the first building be erected on the site of the destroyed Treasury for the departments of Treasury and State followed by the erection of an identical building west of the President's House for War and Navy. In the following year, Elliot and his partner Ithiel Town presented to the Committee on the Public Buildings an estimate for the construction of a Treasury Building comparing the costs of granite, marble, freestone and brick as

<sup>&</sup>lt;sup>19</sup>U.S. Cong., Committee on Public Expenditures, *Superintendent and Architect of Public Buildings*, 27th Cong., 2nd sess., House Doc. 460, p. 2.

<sup>&</sup>lt;sup>20</sup>U.S. Cong., Committee on Public Expenditures, *Annual Report - Commissioner of Public Buildings*, 26th Cong., 2nd sess., House Doc. 58, p. 5.

<sup>&</sup>lt;sup>21</sup>U.S. Cong., Committee on Public Buildings, *Treasury Building*, 25th Cong., 2nd sess., House Rept. 38, p. 3.

<sup>&</sup>lt;sup>22</sup>U.S. Cong., Committee on Public Buildings, *New Executive Buildings*, 23rd Cong., 2nd sess., House Rept. 90, p. 2

the building material.<sup>23</sup>

Meanwhile, Mills was asked by Secretary of the Treasury McLane to prepare a report on the destroyed Treasury Building.<sup>24</sup> Mills inspected the ruins and reported that the floors and roof of the building were constructed of wood. He noted that the fire-proof offices (built by Latrobe with the assistance of Mills in 1804) attached to the west end of the building "received little or no injury from the fire, but the main building, from the combustible nature of the materials, composing the floors and ceiling suffered total demolition." Mills reminded the Secretary "this is the second time that the Treasury main building has been destroyed by fire. . . this fact clearly manifests the importance of giving a more permanent character to any future repository for the public records which may be erected."

On July 2, 1836, Congress appropriated funds to construct a new Treasury Building and a building for the Patent Office. Two days later President Andrew Jackson appointed Mills as architect. Jackson's mandate was that Mills would "aid in forming the plans, making proper changes therein from time to time, and seeing to the erection of said buildings in substantial conformity to the plans hereby adopted, which are, in their general outlines, to be, as to the Treasury Building, that plan annexed by said Mills; and as to the Patent Office, that annexed by Mr. Elliot."<sup>25</sup>

In a letter to the Commissioner of Public Buildings, Mills described his design intent for the Treasury,

The plan of this building, when completed, will form the letter E. The root or main body will extend, when finished, 460 feet, screened by a colonnade of 42 columns; and the return wings, at each end, 200 feet, terminated and flanked by hexastyle porticos, as also the centre block. A low terrace extends between the porticos on the rear, which while affording a business communication from wing to wing, covers vaulted rooms below, business communication from wing to wing, covers vaulted rooms below for fuel, & c., and encloses the court formed by the projection of the wings. These terraces, corridors, and colonnade, will form ample and agreeable promenades for the healthful exercise of the officers of the Department during leisure moments. In the centre of each court there is to be a fountain, and jet d'eau, encircled by a grass plat and shrubbery.

<sup>&</sup>lt;sup>23</sup>U.S. Cong., Committee on Public Buildings, *Estimate of Cost of Treasury Building*, 24th Cong., 1st sess., House Doc. 285, n.p.

<sup>&</sup>lt;sup>24</sup>Mills Papers, document #1336.

<sup>&</sup>lt;sup>25</sup>John Bryan, p. 115.

The order of architecture adopted in this building is the Grecian Ionic, with its richest decorations.<sup>26</sup>

Regarding the federal offices who would occupy the building, Mills wrote,

The plan of the Treasury Building as approved of by the President of the United States, included in its design a building for the State Department, and also, if not required for the Treasury Department, for a General Post Office building so as to constitute one entire range of facade on 15th Street, 457 feet, with a return of two wings 190 feet each, and a center building of equal projection with the wings . . . The original plan had reference to the existing State Department building only to its relative position with the new building, its future disposition being left to circumstances, touching the question of whether or nor it would be most expedient to alter it into a fire proof building, to correspond on all respects with its adjunct, or to rebuild it entirely to meet the demands of the whole design, on this subject I would refer to my printed report of June 25th, 1838.<sup>27</sup>

While Mills has been severely criticized for the placement of the Treasury Building and role in blocking the view between the Capitol and the White House, it appears that he was simply following orders. Commissioner Noland wrote, "Jackson after examination of the ground, in company with his Cabinet, selected the site on which the new Treasury Building is now being erected, as the most suitable one."

## **Construction of the East and Center Wings**

# 1836

Since construction of the new Treasury was not authorized until July, there was little time left in the building season for actual construction. Mills and the Commissioner of Public Buildings immediately attended to "the advertising and forming of contracts, and the whole disbursements

<sup>&</sup>lt;sup>26</sup>U.S. Cong., *Annual Report of the Commissioner of the Public Buildings Building*, 27th Cong., 2nd sess., House Doc. 40, p. 6

<sup>&</sup>lt;sup>27</sup>U.S. Cong., Committee on Public Buildings, *New Treasury Building* , 25th Cong., 2nd sess., House Doc. 447.

<sup>&</sup>lt;sup>28</sup>Letter from Noland to Speaker of the House James K. Polk, September 29, 1837, Record Group 233, HR25A.D20.

thereon."<sup>29</sup> Commissioner William Noland reported that "proposals were invited, by public advertisements, for such materials were necessary to commence the work; and contracts entered into terms, believed, advantageous to Government." Noland complained that advertising caused delays and there was difficulty in procuring materials and workmen at the beginning of the job. Only one-half the number of masons required were employed on site during this first year.<sup>30</sup>

The foundations were begun in August, unfortunately after the most advantageous part of the building season had passed. Mills recorded in his journal that the cornerstone for Treasury was laid September 7, 1836.<sup>31</sup> Quantities of stone (mostly granite) were prepared and set in the foundation walls. Mills predicted that if the masons could prepare enough stone during the winter and spring, he could have the roof on by the winter of 1837. Accordingly, if the roof was completed, Mills indicated that he intended to finish the interior that same year.

Mills described the Treasury construction site,

The foundations of the entire extent of this building, 460 feet in length, including the western projections, are laid; the front range of rooms, brought up to the springing line of the groin arches, several of which are turned and laid in hydraulic cement, and the cut granite facings on the west front, made up as high as the window seats. A large quantity of materials, granite, free stone, cut in the rough, brick, lime and mortar is collected on the spot; and roomy shops are provided for the workmen to cut and dress the stone in the winter, so that no time may be lost in progressing with the buildings in due season.<sup>32</sup>

The amount of funds expended in 1836 on the Treasury Building for workmen, preparing workshops and purchasing materials was \$43,837.48.

In his report of December 1836, Mills recommended that the construction of the south wing of the Treasury building be authorized to provide for the "future accommodation of the State

<sup>&</sup>lt;sup>29</sup>Mills' Papers, document #7008.

<sup>&</sup>lt;sup>30</sup>Mills' Papers, document #7008.

<sup>&</sup>lt;sup>31</sup>Mills' Papers, document # 4006.

<sup>&</sup>lt;sup>32</sup>U.S. Cong., Committee on Public Buildings, *Message from the President of the United States*, 24th Cong., 2nd sess., House Doc. 10, p. 3.

Department."<sup>33</sup> This was first of many appeals Mills would make regarding the construction of the extension of the Treasury Building.

## 1837

Progress on the construction during 1837 was slowed due to Mills' difficulty in procuring sandstone during the spring and summer.<sup>34</sup> As a result, the completion of the roof was delayed until the following summer. During the year, Mills also concentrated the work force on the east wing so that it could be readied for occupancy. He made little progress on the center wing.

Mills also reported that he had covered the outside surface of the arches with hydraulic cement which became "hard and dry in a short time, prevents rainwater from penetrating them." This enabled him to protect the finished construction from the elements. Mills anticipated that the interior finish work would progress quickly as, "all windows and doors are cased and finished with cut stone, as well as the skirting or base of the rooms, & c.; nothing therefore, comparatively, has to be done here to prepare for the plasterer." The granite basement and the parapet in front, for the colonnade, had also been completed. The cut stone flagging for paving the corridors and staircases was in progress, as also the residue of the cut granite for the west building. <sup>36</sup>

Mills reported to the Commissioners that he had great quantities of building materials on site with which to complete the construction. These materials included five hundred and fifty-two thousand bricks; 227 barrels of hydraulic cement; and 500 barrels of lime. Lumber sufficient for the groin centers (and, in the interval, used for covering the work) was also on site. Glass for the building had been delivered so that most of the sashes and window frames could be prepared that winter.

The expenditures during 1837 totaled \$145,816.05 leaving a balance of \$156,934.24. Mills reported

<sup>&</sup>lt;sup>33</sup>U.S. Cong., Committee on Public Buildings, *Message from the President of the United States*, 24th Cong., 2nd sess., House Doc. 10, p. 2

<sup>&</sup>lt;sup>34</sup>U.S. Cong., Committee on Public Buildings, *Annual Report of the Commissioner of Public Buildings*, 25th Cong., 2nd sess., House Doc. 28, p. 3.

<sup>&</sup>lt;sup>35</sup>Hydraulic cement is made from hydraulic lime, and hardens under water. The setting time varies from one to twenty days, depending on the quality of the lime used. An architectural encyclopedia from the midnineteenth century stated: "The object to be aimed at in making *hydraulic concrete*, is to give to such a sufficiency of mortar as will produce the aggregation of the whole mass of rough rubble materials." (Gwilt, *Encyclopedia of Architecture*, p. 539) This best describes Mills' use of hydraulic cement to form the structure in the Treasury Building. Hydraulic cement was a relatively recent invention; the British engineer Sir John Smeaton developed the formula in the late eighteenth century, and used the new cement in the construction of lighthouses, canal locks, and other marine constructions in England. Benjamin Henry Latrobe began his professional training as an engineer, working on canals and river improvement projects, in Smeaton's office.

<sup>&</sup>lt;sup>36</sup>Mills' reference to the "west wing" is actually his center wing.

that an additional \$100,000 was required to finish the building (exclusive of the colonnade).<sup>37</sup>

On December 21, 1837, Mills presented A Report of the Architect of the Public Buildings, with a Plan of the Treasury Building now in process of erection, &c.<sup>38</sup> These plans showed the location, adjacent streets and public square; elevation; number and size of offices and the number and size of rooms suitable for the storage of records.<sup>39</sup> Mills explained that the east and center wings were intended to house only the Treasury Department, although he acknowledged that other executive departments also needed office space. According to the text (unfortunately, the published version of this report omitted the drawings), the submitted drawings show the proposed south wing "intended for other Department other than Treasury."

In this 1837 report, Mills offered an opinion on whether or not to remove the Old State Department north of the new Treasury Building. He stated that it would more economical to demolish the building and replace it with a new fireproof building than to remodel the exisiting building. He wrote,

[I]t was always my opinion that all the executive offices should have been contiguous to each other, if not under the same roof; and this opinion, I believe, was also that of your predecessor, and of the heads of the different Departments, at the period when the first designs were projected for these offices, upon the public square north of the President's house.

Soon after the burning of the Treasury building in 1833, I prepared some designs, for the construction of fire-proof buildings for the public offices, projected upon a plan to bring all the Departments contiguous to each other, or under the same roof.<sup>40</sup>

## 1838

The construction of the Treasury was interrupted in 1838 by a controversial debate surrounding Mills' design. In what has been called "one of the most bizarre procedures ever perpetuated by any American legislative body," in 1838 the House of Representatives considered a proposal to demolish

<sup>&</sup>lt;sup>37</sup>U.S. Cong., Committee on Public Buildings, *Annual Report of the Commissioner of Public Buildings*, 25th Cong., 2nd sess., House Doc. 28, p. 4.

<sup>&</sup>lt;sup>38</sup>U.S. Cong., Committee on Public Buildings, *Message from the President of the United States*, 25th Cong., 2nd sess., House Doc. 38, pp. 2-4.

<sup>&</sup>lt;sup>39</sup>Mills' Papers, document #7012.

 $<sup>^{40}</sup>$ U.S. Cong., Committee on Public Buildings, *Message from the President of the United States*, 25th Cong., 2nd sess., House Doc. 38, p. 3.

Mills' partially constructed Treasury Building.<sup>41</sup> In January, the Committee on Public Buildings and Grounds, chaired by Congressman Levi Lincoln of Massachusetts, directed architect Thomas Ustick Walter to inspect the Treasury Building and submit,

[His] opinion as to the fitness of the site selected for the location of the edifice, and also the adaptation of the plans to the object and uses for which it is to be erected; and having been subsequently directed by you to extend my observations to the stability of the structure, and its architectural effect.<sup>42</sup>

Walter proceeded to provide a critical analysis of nearly every feature and aspect of Mills' design for Treasury. Perhaps the most stinging criticism was the placement of the building and its obstruction of the view between the President's House and the Capitol.

Walter also criticized the structural integrity of Mills' Treasury. In his opinion, the walls were too thin to sufficiently carry the load considering the horizontal thrust of the groin arches on the exterior wall. He was concerned that the pilasters on the exterior walls were not secured to the wall with cramps<sup>43</sup>, ties or dowels.<sup>44</sup>

Criticisms about the interior accommodations included complaints that the basement offices (present day first floor) were dark and damp. Offices located on the third story (present day fourth floor) were also dark. Walter stated that the corridors "are entirely too narrow for either beauty, convenience or comfort" and that the offices themselves are too small.

Walter's final attack was on the "architectural appearance of the building" where he focused on Mills most significant architectural feature-- the east colonnade. Of this colonnade Walter wrote:

This I consider as by no means creditable to the nation; the long row of columns on Fifteenth street (being forty-two in number)<sup>45</sup> standing

<sup>&</sup>lt;sup>41</sup>William H. Pierson, Jr, *American Buildings and Their Architects: The Colonial and Neoclassical Styles*, I (New York: Oxford University Press, 1970), p. 415.

<sup>&</sup>lt;sup>42</sup>Thomas U. Walter, *Report on the New Treasury Buildings and Patent Office at Washington* (Philadelphia, Pennsylvania: L.R. Bailey, 1838), p. 3.

<sup>&</sup>lt;sup>43</sup>A cramp refers to a metal strap used to fasten adjoining masonry stones together, especially when used to attach face stone to the backing; shaped in the form of a large staple or a double dovetail and inserted in recesses cut in the top of the stones; often seated in lead. (Bucher, *Dictionary of Building Preservation*).

<sup>&</sup>lt;sup>44</sup>Thomas U. Walter, *Report on the New Treasury Buildings and Patent Office at Washington* (Philadelphia, Pennsylvania: L.R. Bailey, 1838), p. 7

<sup>&</sup>lt;sup>45</sup>Walter was incorrect. The correct number of columns is thirty.

upon an inclined plane of fourteen feet, without any break or projection to relieve the monotony, can never be considered as beautiful. The impress produced on the mind through the medium of the eye, by this long colonnade, will be similar to that made by a continuous sound of one melodious note in music; there will, it is true, be architectural melody, (if you will allow the figure,) but no harmony, because there are no different principles of composition to harmonize; but one kind of idea will therefore be produced in the mind, which will be far from agreeable after the first impression has passed away.<sup>46</sup>

Walter concluded his report with a recommendation that the Treasury Building be demolished, along with the old State Department Building. This, Walter reasoned, would allow the Treasury Building to be re-erected along Fifteenth Street but further north between F and G. He noted that this placement had the advantage of preserving the view between the President's House and the Capitol.

Two months later, Boston architect Alexander Parris was invited by the Committee on Public Buildings and Grounds to provide a second assessment of the Treasury Building. Parris concurred with Walter with regard to the defects of the corridors and the darkness of the basement and upper story offices. Parris shared Walter's concern about the structural integrity and recommended that the groin arches be replaced with iron beams and brick arches.<sup>47</sup>

Mills prepared a vigorous rebuttal on February 21, 1838.<sup>48</sup> He agreed with Walter's criticism of the site but defended himself by declaring that "the recommendations of previous committees, grounded on full and zealous inquiries, were too explicit to warrant any misconception of their views and intentions." He rejected Walter's statement that the Treasury would obstruct the view between the White House and the Capitol, however. Mills referred the committee members to "the diagram plan [which] shows that the north line of the Pennsylvania avenue, extended out towards the President's house, will cut only a few feet of the southwest corner of the Treasury building, which will affect the vision but little, in the width of the avenue, between the capitol (sic) and the President's house."

In defense of the structural stability of the building, Mills cited his "experience and practice of upwards of thirty years, during which time I have erected numerous *fire-proof*, as well as other buildings, public and private, warrant me in the solemn declaration, that a more permanent piece of

<sup>&</sup>lt;sup>46</sup>Thomas U. Walter, *Report on the New Treasury Buildings and Patent Office at Washington* (Philadelphia, Pennsylvania: L.R. Bailey, 1838), p. 10

<sup>&</sup>lt;sup>47</sup>U.S. Cong., Committee on Public Buildings, *Report to Accompany Senate Bill No. 304*, 25th Cong., 2nd sess., Senate Rept. 435, pp 31-2.

<sup>&</sup>lt;sup>48</sup>U.S. Cong., Committee on Public Buildings, *Report to Accompany Senate Bill No. 304*, 25th Cong., 2nd sess., Senate Rept. 435, pp. 19-27.

work, or walls better capable of sustaining the span of arches with which they are now, or may hereafter be, covered, have never been constructed in this country." As proof of his talent as an engineer, Mills referred the Committee to his Fireproof Building in Charleston, the Lunatic Asylum in Columbia, the Custom House in Newburyport and other structures designed by him "all of which are now standing as intact as on the day they were finished." Mills cited the use of strong hydraulic cement—which relieved the lateral pressure. Furthermore, Mills declared that Walter was in error and that iron clamps had been used to anchor the exterior pilasters to the wall.

In defense of his colonnade, Mills directed the Committee's attention to the Louve with its colonnade "elevated upon a *high basement*" and the Bourse in Paris "which has extended and unbroken colonnades" and "is regarded as the most magnificent of modern structures." Mills described his colonnade as "both grand and imposing."

Following this debate, the Committee on Public Buildings and Grounds concluded that "it would be *unwise* and *inexpedient* to suffer the work of construction, upon the present plan of the new Treasury building, to proceed further. . . They recommend, therefore, that the walls be taken down, and immediately removed, and applied to the erection of a building for the accommodation of the Post Office Department."<sup>49</sup>

Once the proposed bill to demolish the Treasury was put before the entire House, Pennsylvania Congressman Kiem aggressively defended Mills. Highlighting an important inconsistency in Walter's report, Kiem correctly pointed out that the building was exhibiting none of the structural problems that Walter predicted. When the bill was voted upon, it was defeated by a narrow margin of ninety-four to ninety-one votes. Work on the building resumed.

In December of 1838 Mills reported on the progress of the construction, pointing out that work was stopped until June due to the Congressional debate on the building. Regardless of this delay, Mills reported that the last story of arches was being turned, the granite steps on the exterior east facade were in progress and that contracts had been awarded for the colonnade stone, marble and stone flagging.

Mills' report of 1838 is the first report in which he detailed the completed work of each of the trades. The stone cutters had completed cutting all of the stone for the east wing except for the colonnade on the east wing and part of the stone for the center wing. The bricklayers' work was at varying states of completion with the east wing the furthest along. In the center wing, only the basement walls were completed with two rooms arched. The carpenters, painters and glaziers had much work remaining including the building of 184 panelled doors, the attic windows still needed to be glazed and "nearly all of the interior dressings to be painted."

<sup>&</sup>lt;sup>49</sup>U.S. Cong., Committee on Public Buildings, *Report to Accompany Senate Bill No. 304*, 25th Cong., 2nd sess., Senate Rept. 435, p. 8.

The expenditures for the building in 1838 totaled \$124,764.00.50

## 1839

In the report of December 1839, Mills stated that the roof was complete, but some stone work above the cornice still needed to be set. Much of the interior space was occupied, with the Secretary being temporarily located in a northern office on the present day second floor. Water service from "the main conduit on the avenue has been conducted by pipes into every story of this building; which will aid much in preserving cleanliness to every floor." Mills closed his report for a request for an additional \$105,000 to complete the building according to the original design.<sup>51</sup>

In 1839, Mills urged Congress to adopt a new technology that would provide illumination for the public buildings under construction. He proposed that the exterior lamps around the Capitol and in the President's Square be replaced with carburetted hydrogen gas. Mills continued that "when the works for generating the gas are once in operation, the interior of the Capitol, President's house and all the Executive offices, may be lighted up at a cost much below the present expenses for oil and candles." This recommendation resulted in a Senate bill "to provide for lighting the Capitol and President's squares, and the Pennsylvania avenue." By 1848, gas lighting was in place along Pennsylvania Avenue and in the President's House. Mills can be credited with this significant technological development for the city and its public buildings.

# <u>1840</u>

At the end of 1840, Commissioner Noland reported to Congress that the interior of the building was completed with the exception of the "flag pavement" in the basement story.

Work on the exterior that was yet to be finished included the buildings in the rear<sup>53</sup> for fuel vaults and privies, completing the west portico, the peristyle and plafond of the colonnade<sup>54</sup>, paving the lower terrace, enclosing the building with an iron railing, and grading and paving the courts on the west front.

<sup>&</sup>lt;sup>50</sup>U.S. Cong., Committee on Public Buildings, *Annual Report of the Commissioner of Public Buildings*, 25th Cong., 3rd sess., House Doc. 20, p. 1.

<sup>&</sup>lt;sup>51</sup>U.S. Cong., Committee on Public Buildings, *Annual Report of the Commissioner of Public Buildings*, 26th Cong., 1st sess., House Doc. 32, pp. 5-6.

<sup>&</sup>lt;sup>52</sup>U.S. Cong., Committee on the District of Columbia, *Documents Relating To the Bill (S. 329)*, 26th Cong., 1st sess., Senate Doc. 434.

<sup>&</sup>lt;sup>53</sup>These building were probably storage rooms below the connecting terraces on the west side.

<sup>&</sup>lt;sup>54</sup>The "plafond" is French for ceiling and Mills is probably referring to the ceiling of the east colonnade. It is not clear what Mills meant by "peristyle."

Mills wrote that in the effort to complete the colonnade "no serious accident has occurred in raising the enormous weights connected with the work, and to such great heights; though, in two instances, the derrick, hoisting the stone, gave way, from unavoidable causes, even when heavy masses of material were appended from it."<sup>55</sup>

## 1841

In 1841, Mills reported that the "operations on this building have been confined to the rear, completing the requisite offices, fuel vaults, water closets, & c., and erecting the portico of the western wing." He wrote that the "main building, in its colonnade, basement story, north terrace courts, pavements and enclosures, is yet unfinished."

## 1842

Mills reported that work in 1842 was "confined principally to completing the portico of the western wing of the building, finishing the offices, fuel vaults, water closets, and terrace of the back building, fluting the columns of the colonnade, constructing the balustrade that surmounts the colonnade, plastering and panelling (sic) the ceiling of the colonnade and western portico, flagging the terrace with marble tile and enclosing the same with an iron railing between the columns." <sup>57</sup>

In April of 1842 as the building was nearing completion, Commissioner Noland provided a fitting tribute to the individuals involved with the construction,

From all that I have been able to learn, from the most authentic sources there never have been public buildings of the same magnitude erecting in this city with so much system and order, and with less confusion; and the superintendents, who are men of unimpeachable character, all of them, that there has been scarcely an instance of angry strife or personal quarrel amongst them and the workmen. They also declare that, during the execution of such extensive works, they never have witnessed so much harmony and good feeling.<sup>58</sup>

<sup>&</sup>lt;sup>55</sup>U.S. Cong., Committee on Public Buildings, *Annual Report - Commissioner of Public Buildings*, 26th Cong., 2nd sess., House Doc. 58, p. 4.

<sup>&</sup>lt;sup>56</sup>U.S. Cong., Committee on Public Buildings, *Annual Report of the Commissioner of Public Buildings*, 27th Cong., 2nd sess., House Doc. 40, p. 5.

<sup>&</sup>lt;sup>57</sup>U.S. Cong., Committee on Public Buildings, *Annual Report of the Commissioner of Public Buildings*, 27th Cong., 3rd sess., House Doc. 54, p. 2

<sup>&</sup>lt;sup>58</sup>U.S. Cong., Committee on Public Buildings, *Letter from the Commissioner of Public Buildings*, 27th Cong., 2nd sess., House Doc. 195, p. 3

# **Plans for the Treasury Extension**

In a proposal prepared by Mills in 1845, he resubmitted his recommendation that the north and south wings be added to the Treasury Building and suggested that the length of the 15th Street facade of Treasury be extended to "about 500 feet- the length of the celebrated Parthenon at Athens." Furthermore, he proposed that an identical building be constructed west of the White House for the War and Navy departments.<sup>59</sup>

It is believed that his last appeal was sent to Secretary of the Treasury Thomas Corwin in the early 1850s. In this letter, Mills described a plan to complete the building "according to the original Design, as approved by the President of the United States-." He proposed that the south wing would be designated for the use of the Treasury. The north wing would be constructed for the use of the State Department.<sup>60</sup>

Mills was terminated in 1851 and died four years later at his home a few blocks from Treasury. When the Treasury Extension was authorized in 1855, Mills' most ardent critic Thomas Ustick Walter was asked to prepare a design. Supervising Architect Ammi B. Young and Engineer-in-Charge Alexander Bowman were placed in charge of its construction.

The total cost of the Treasury Building when completed was \$6,127,465. The east and center wings cost \$660,773.<sup>61</sup>

 $<sup>^{59} \</sup>rm U.S.$  Cong., Committee on Public Buildings and Grounds, *Public Buildings*, 28th Cong., 2nd sess., House Doc.89, p. 9.

<sup>&</sup>lt;sup>60</sup>National Archives, Record Group 121, Entry 26, Box 1422.

<sup>&</sup>lt;sup>61</sup>A History of the Public Buildings Under Control of the Treasury Department, Washington, DC: GPO, 1901